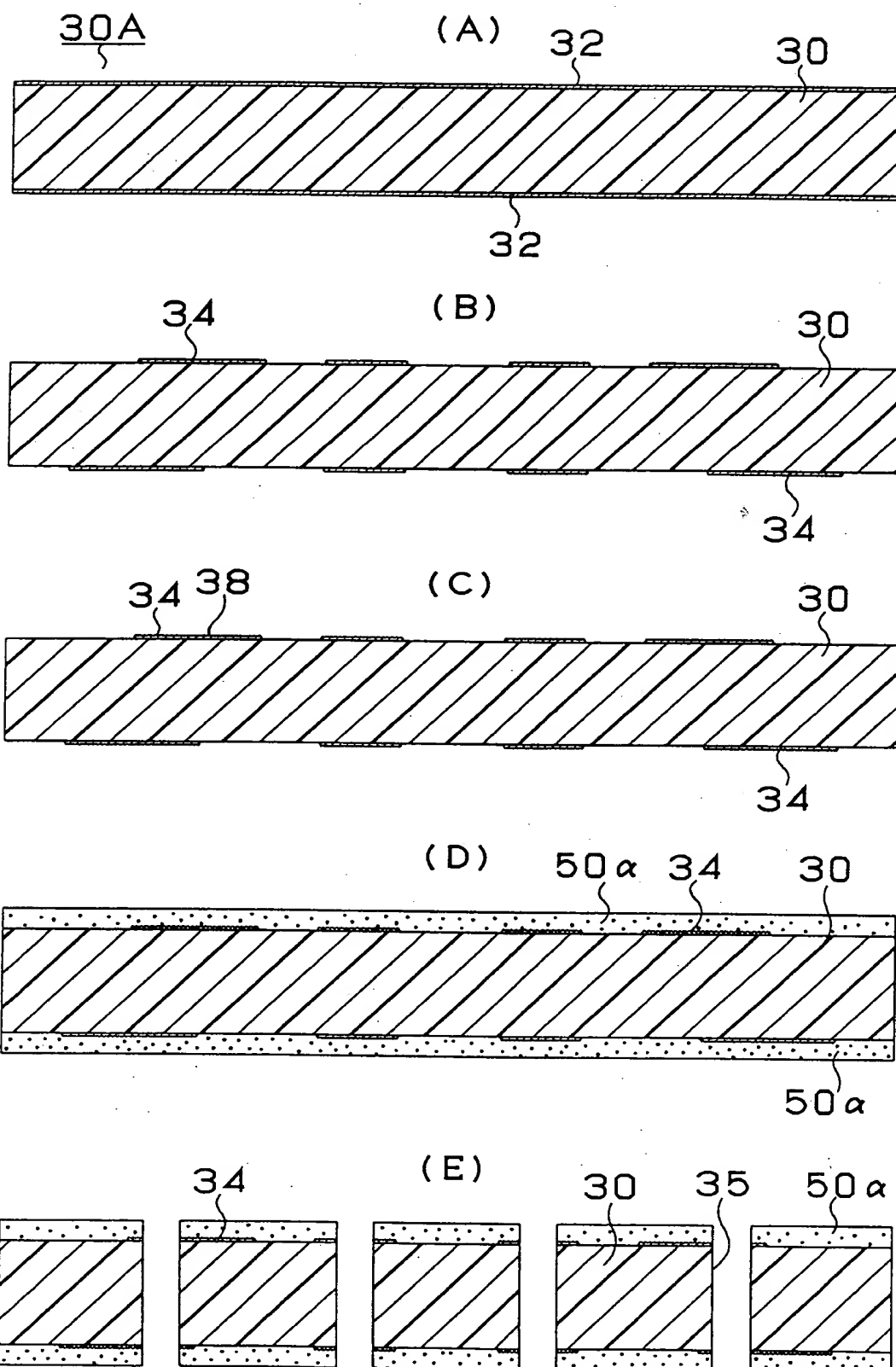


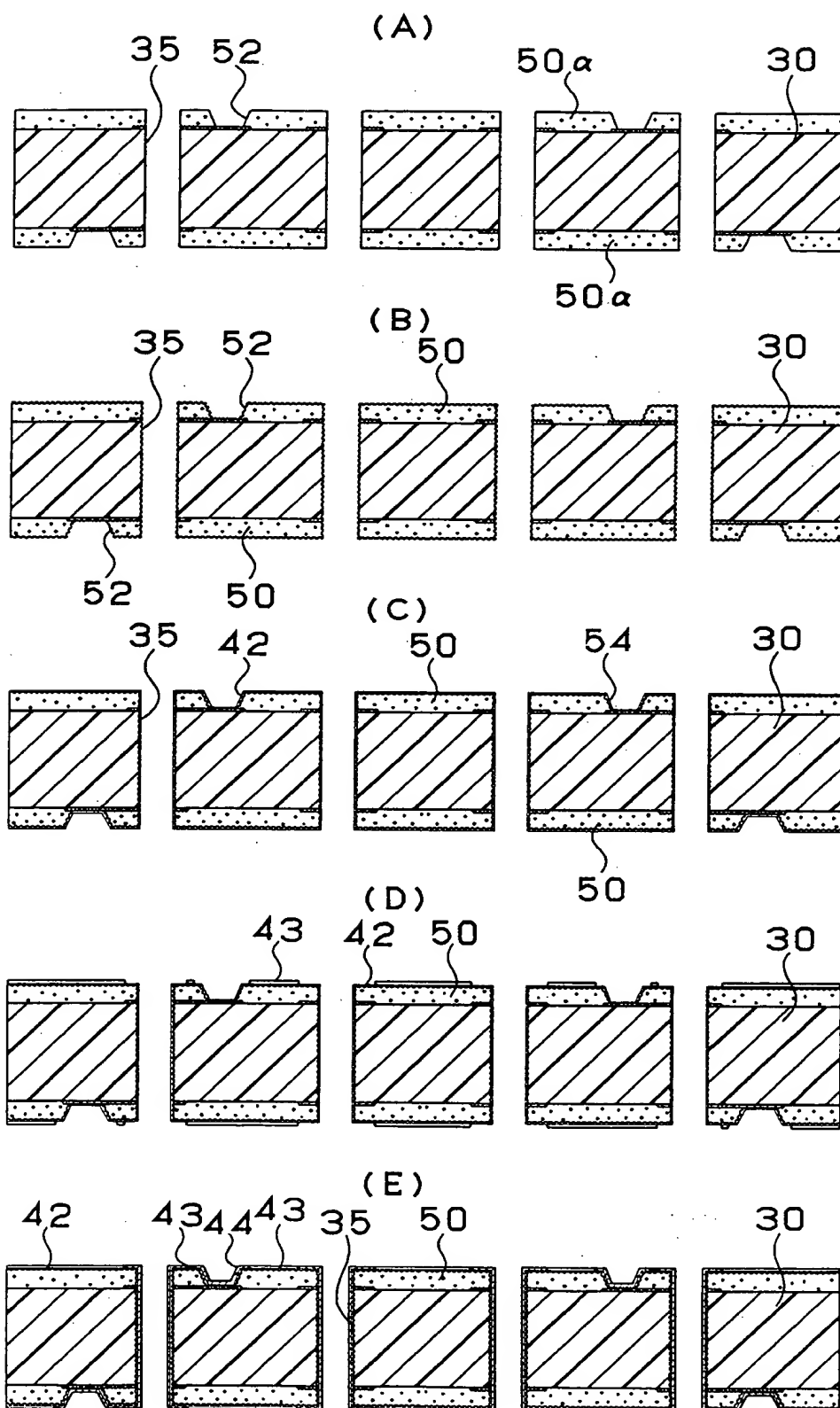
1/22  
Fig. 1



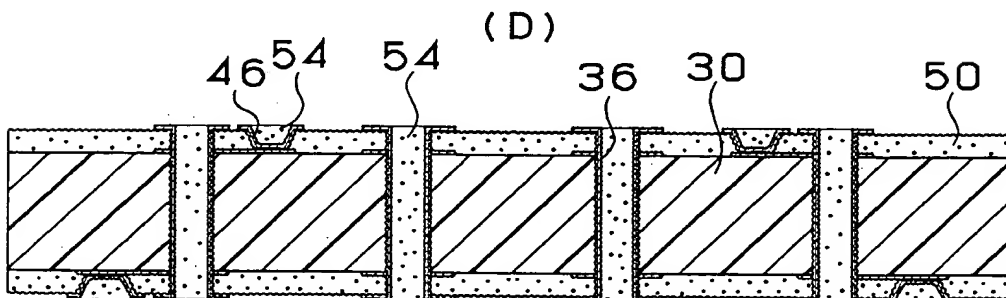
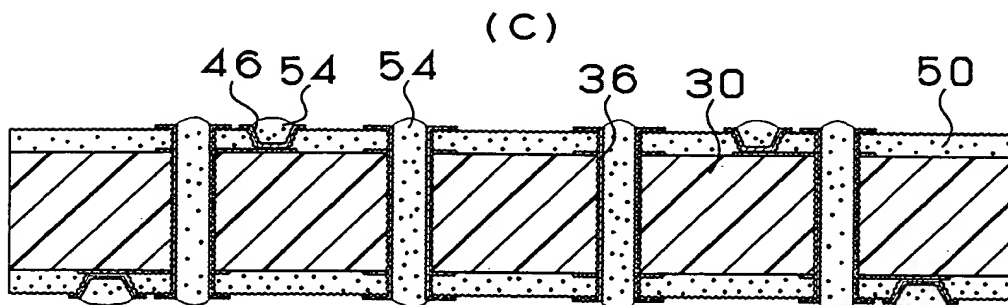
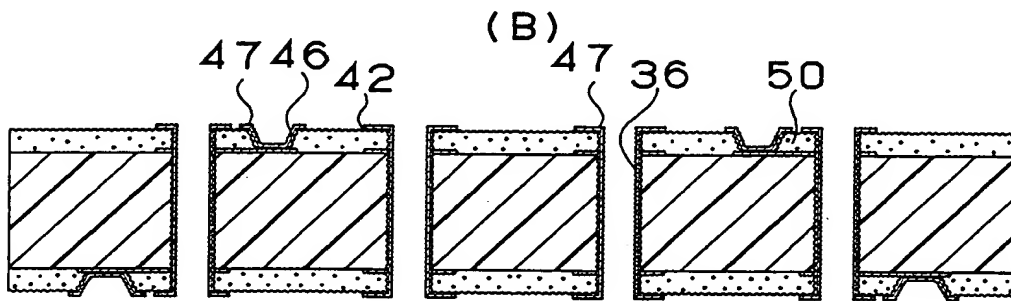
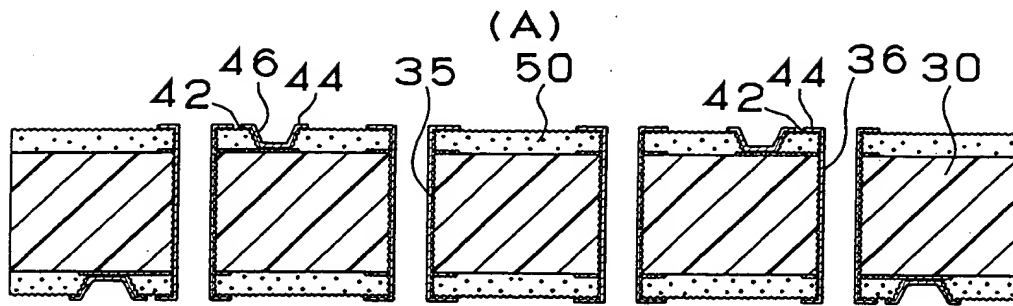
LOOK AT  
PAGE 6

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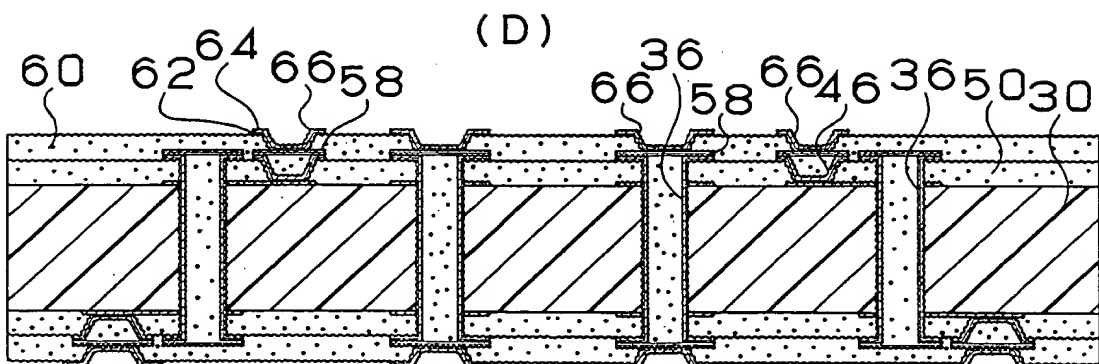
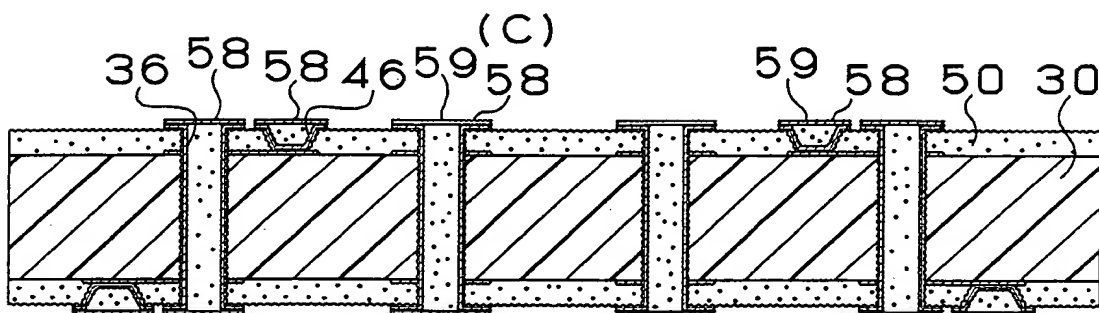
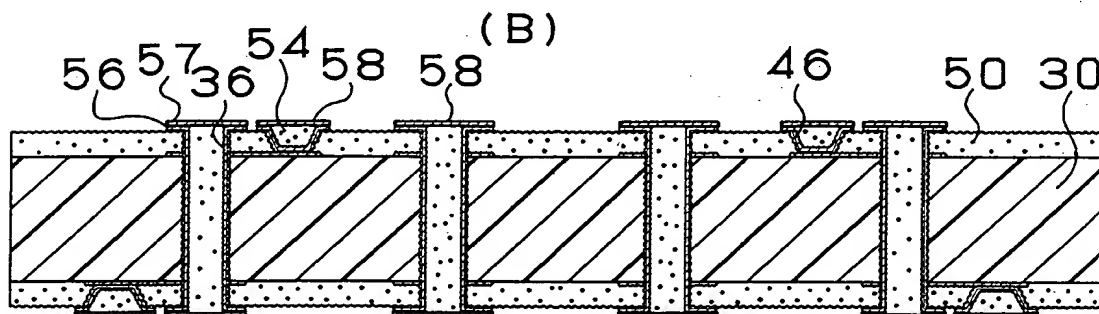
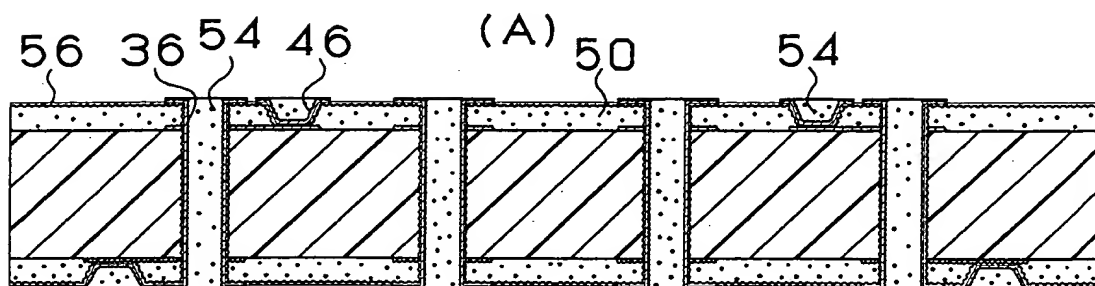
2/22  
Fig. 2



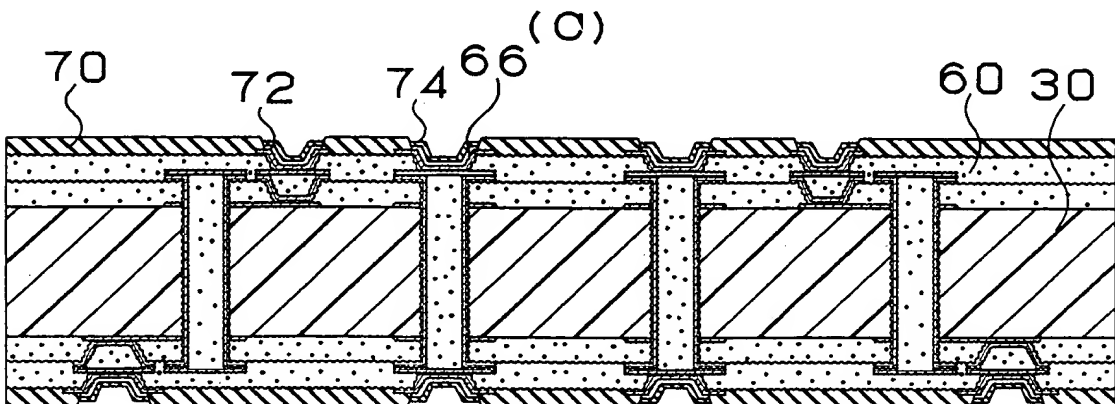
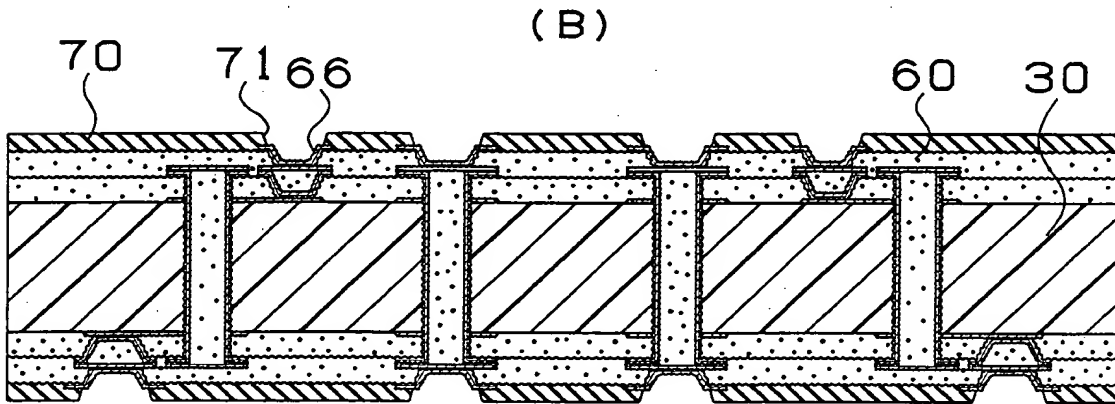
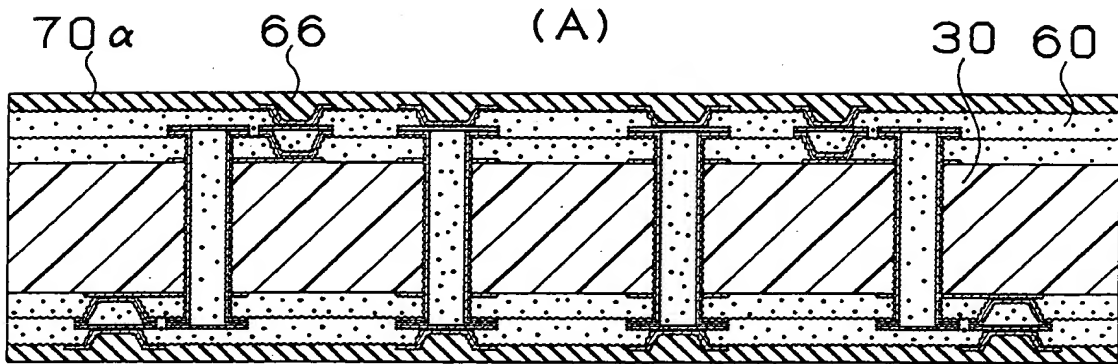
3/22  
Fig. 3



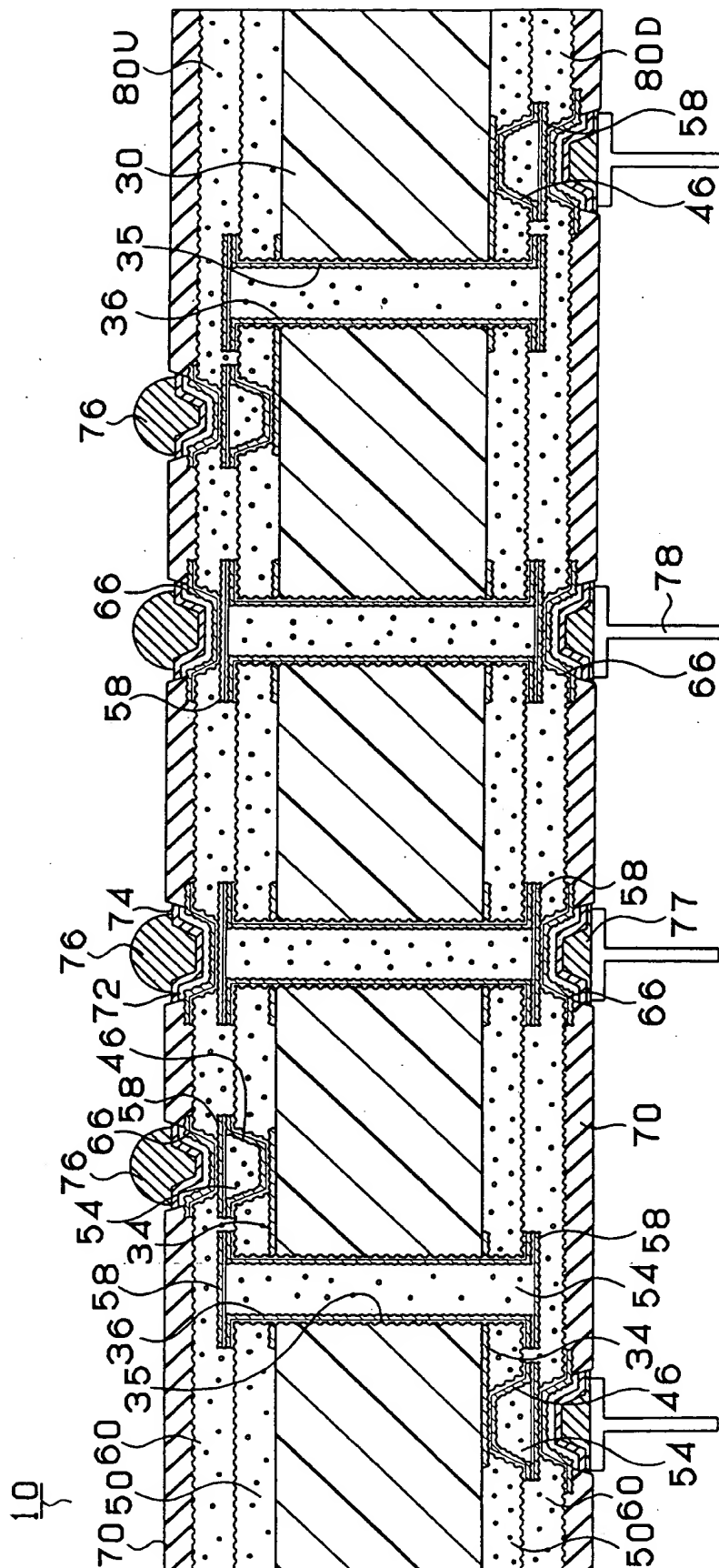
4/22  
Fig. 4



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Fig. 5



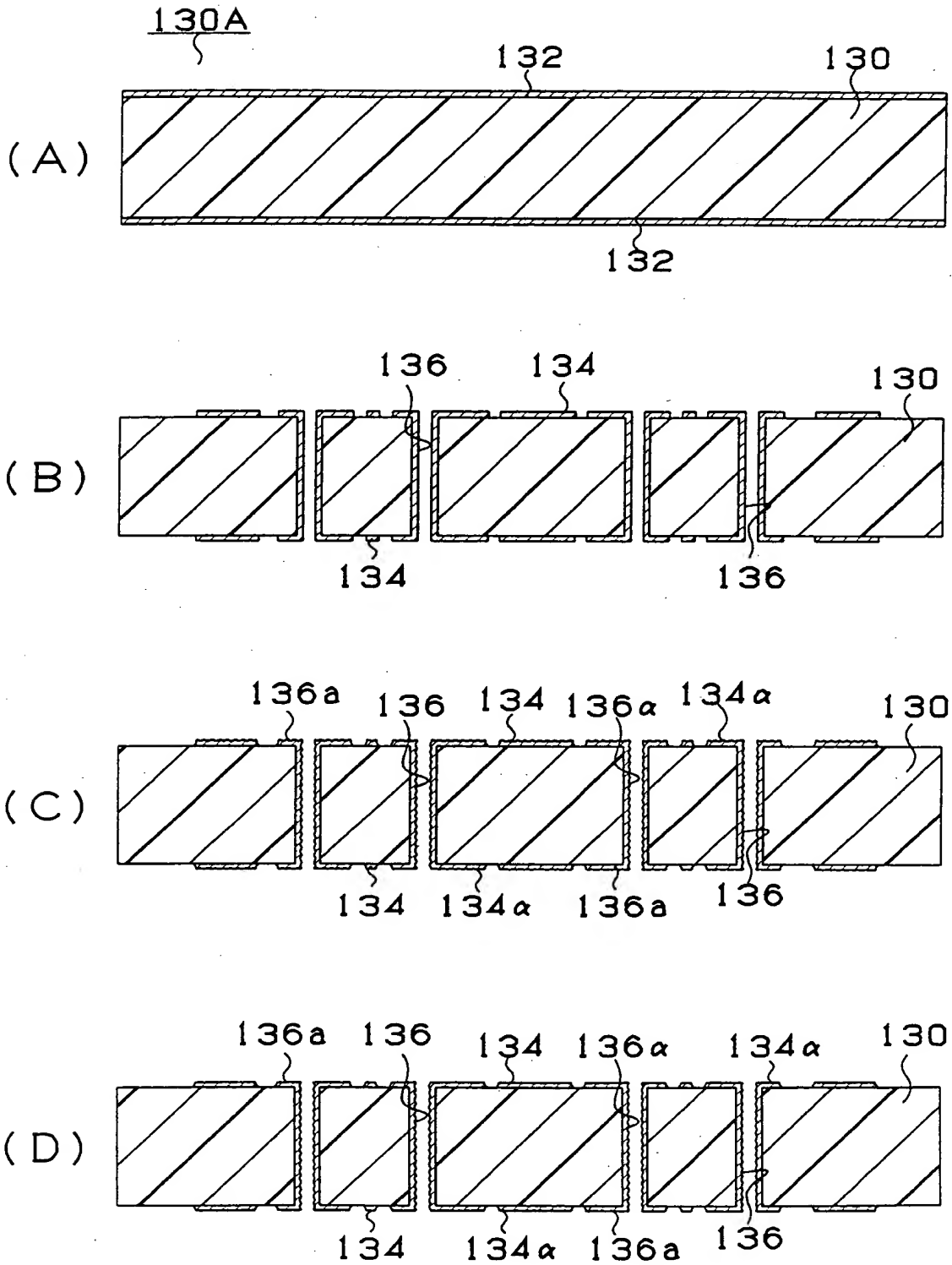
6/22  
Fig. 6



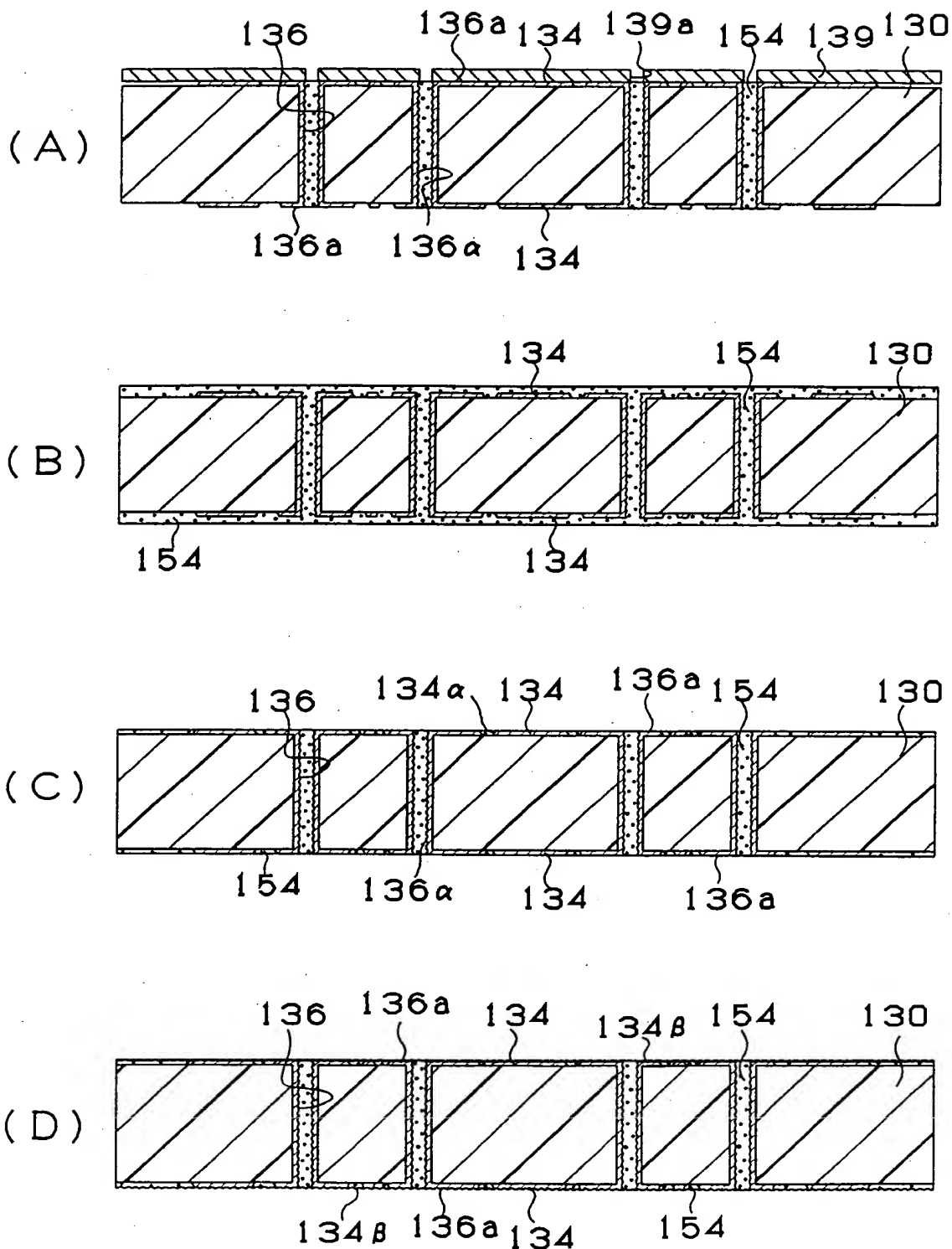
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F i g. 7

	Embodiment	Comparison Example
Electrical connection characteristic	OK	NG
Separation	NO	YES
Expansion	NO	YES

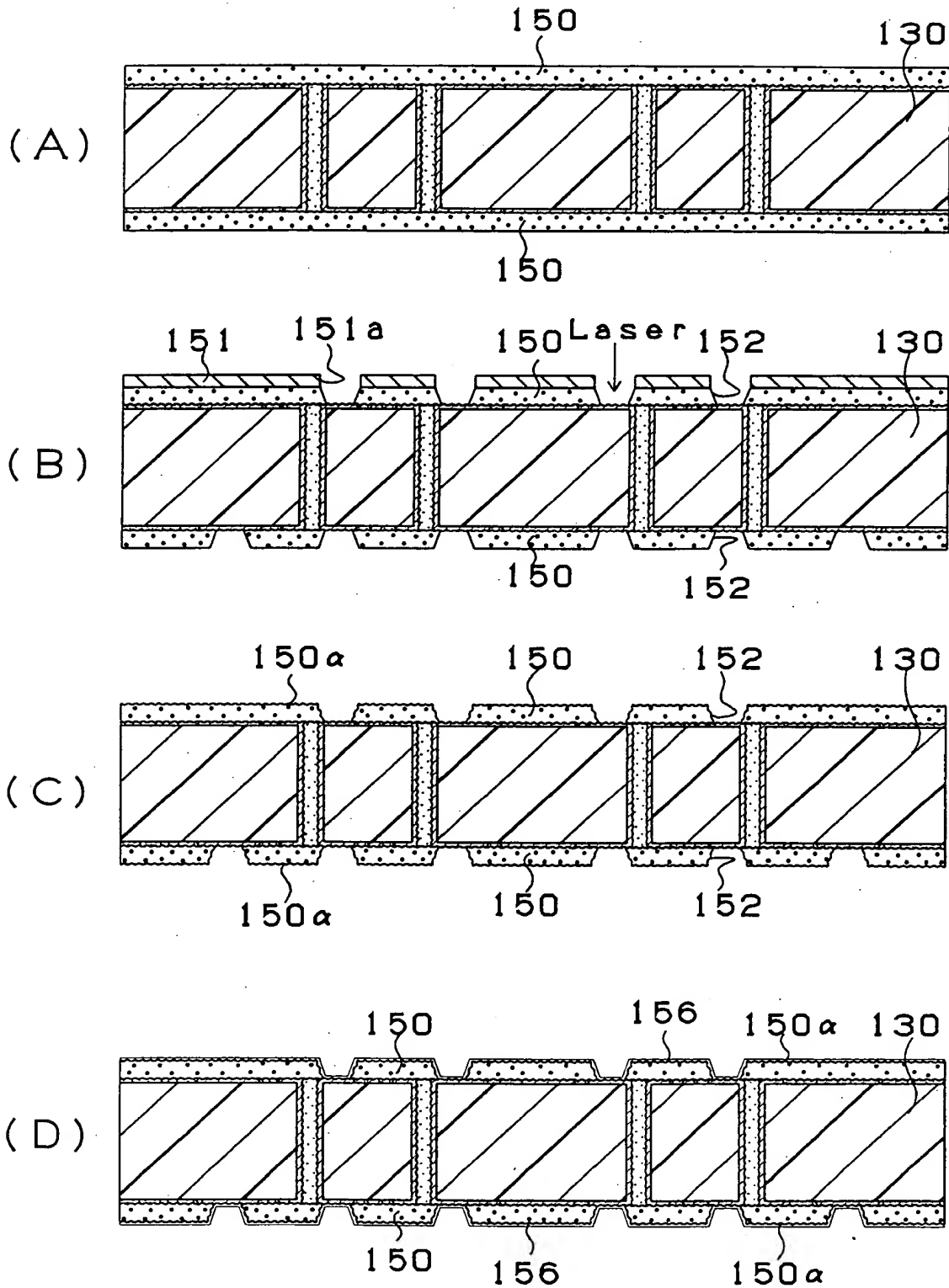
8/22  
Fig. 8

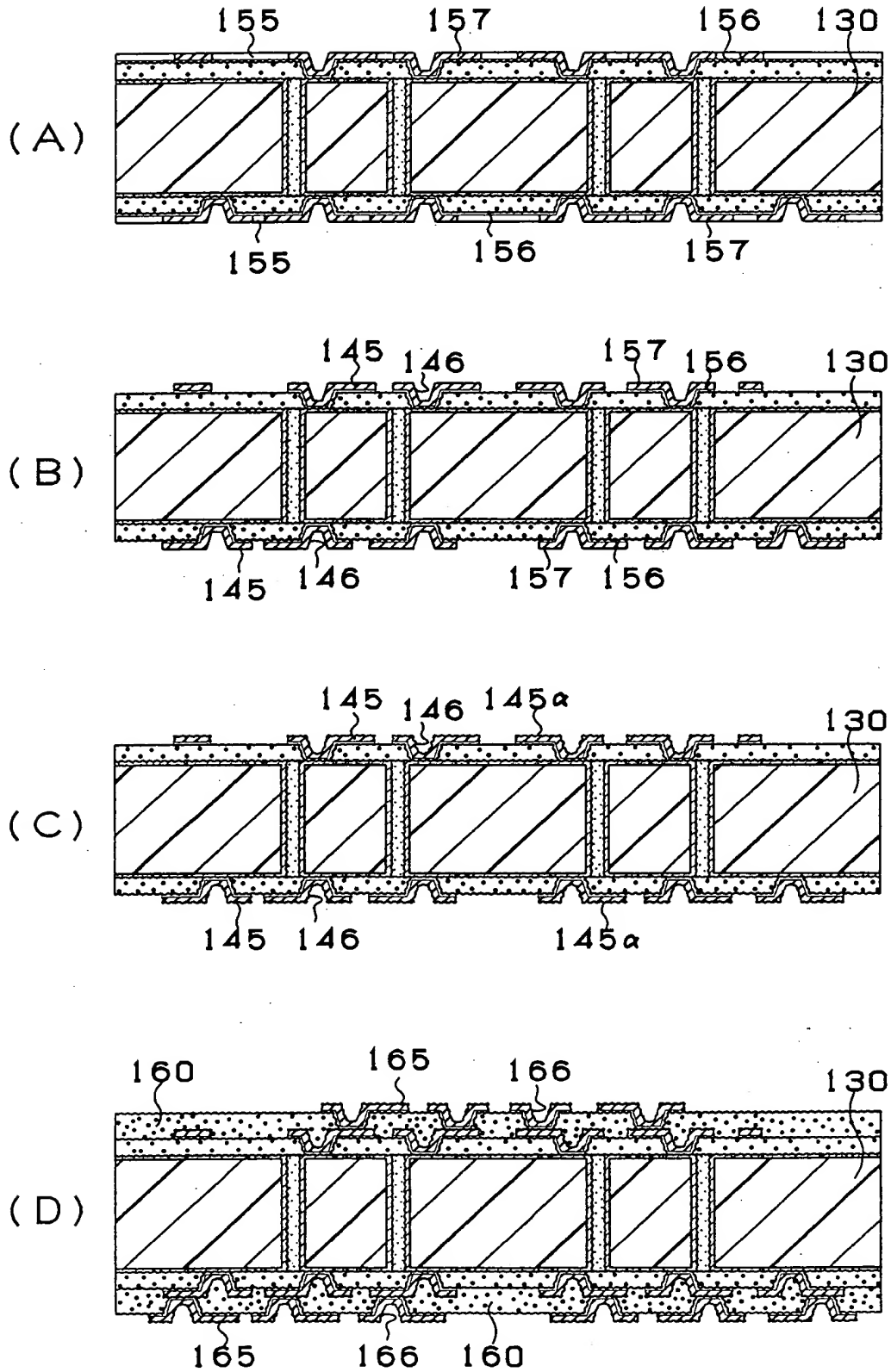




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Fig. 9

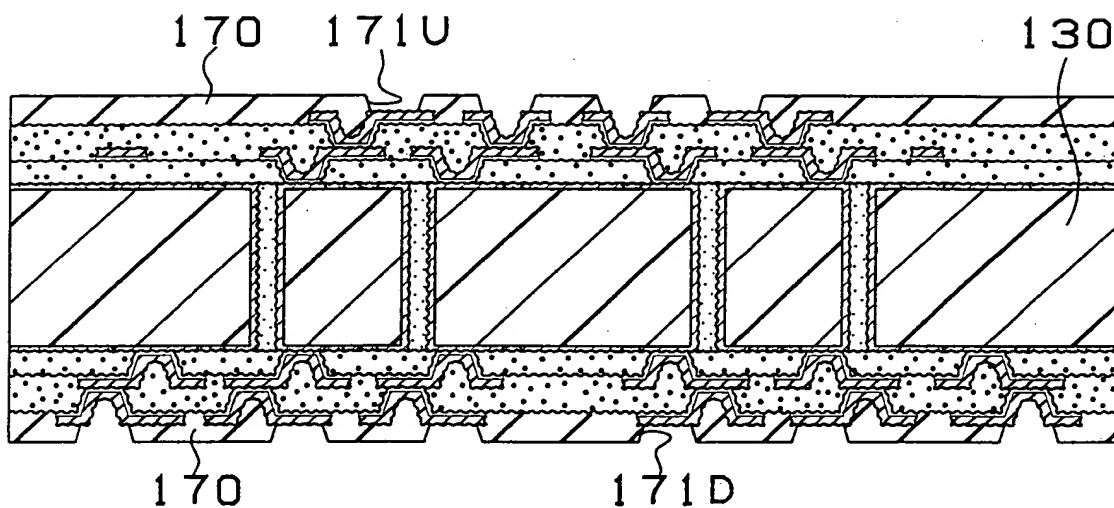
10/22  
Fig. 10



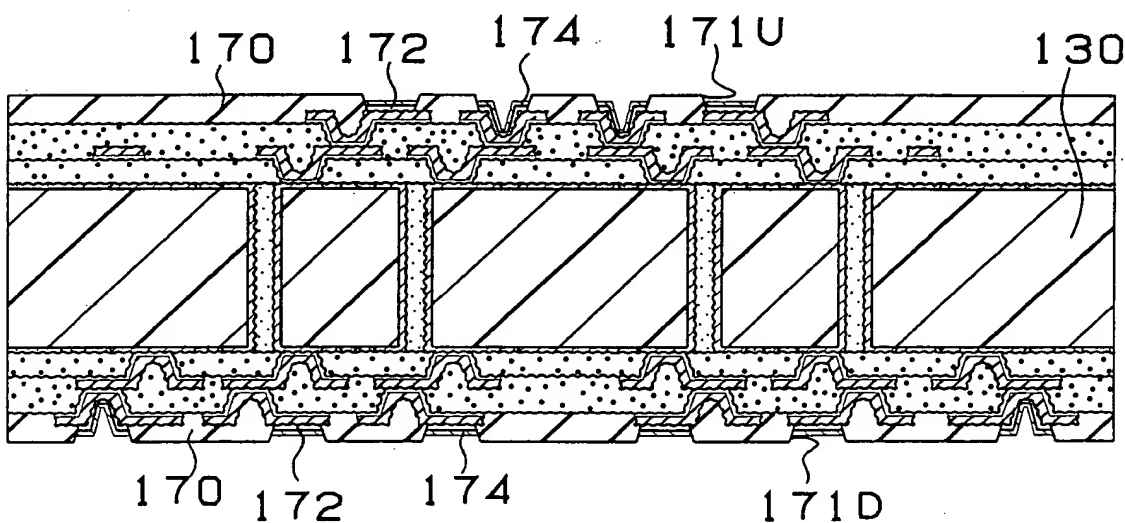
11/22  
Fig. 11

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Fig. 12

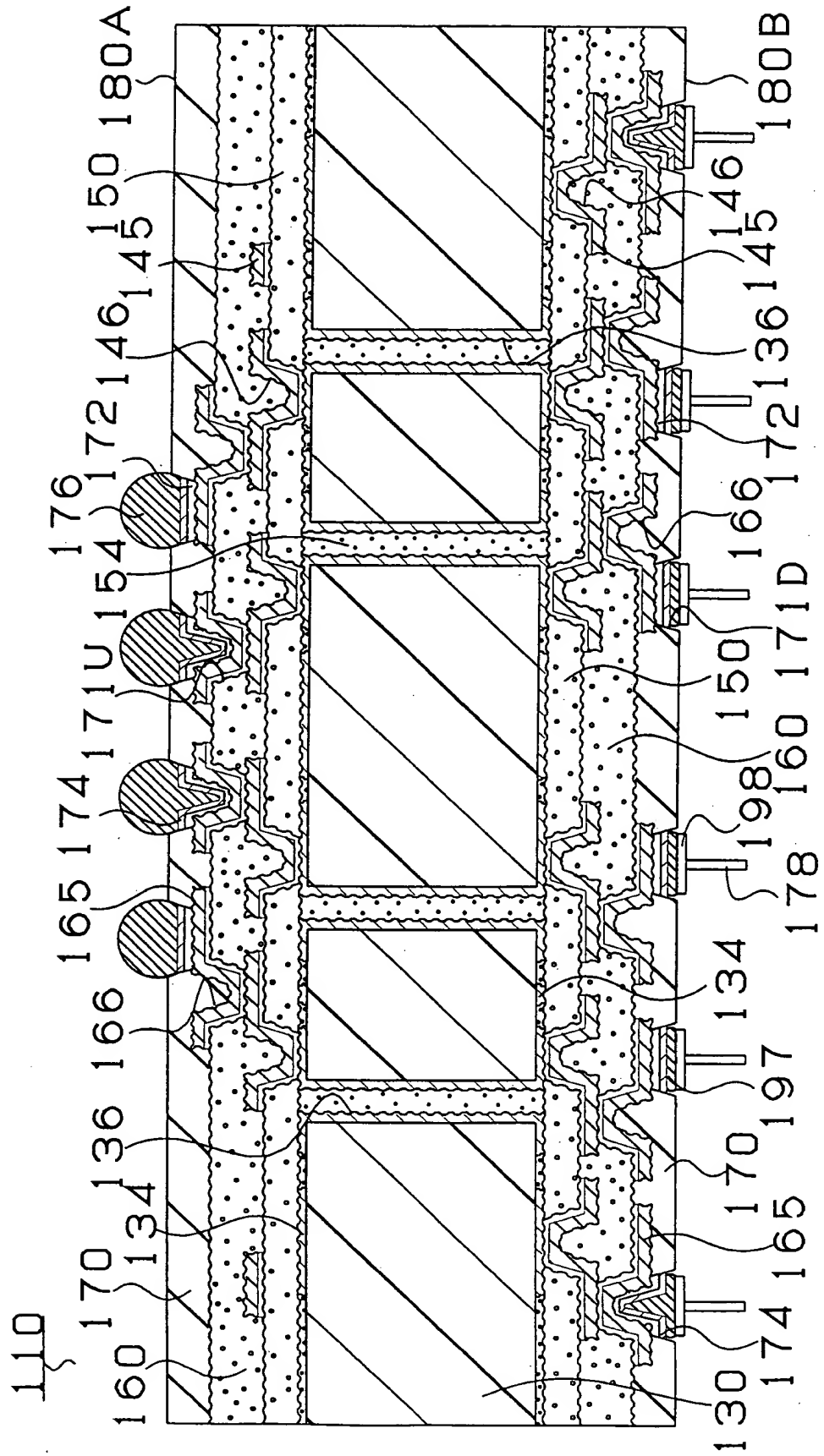
(A)



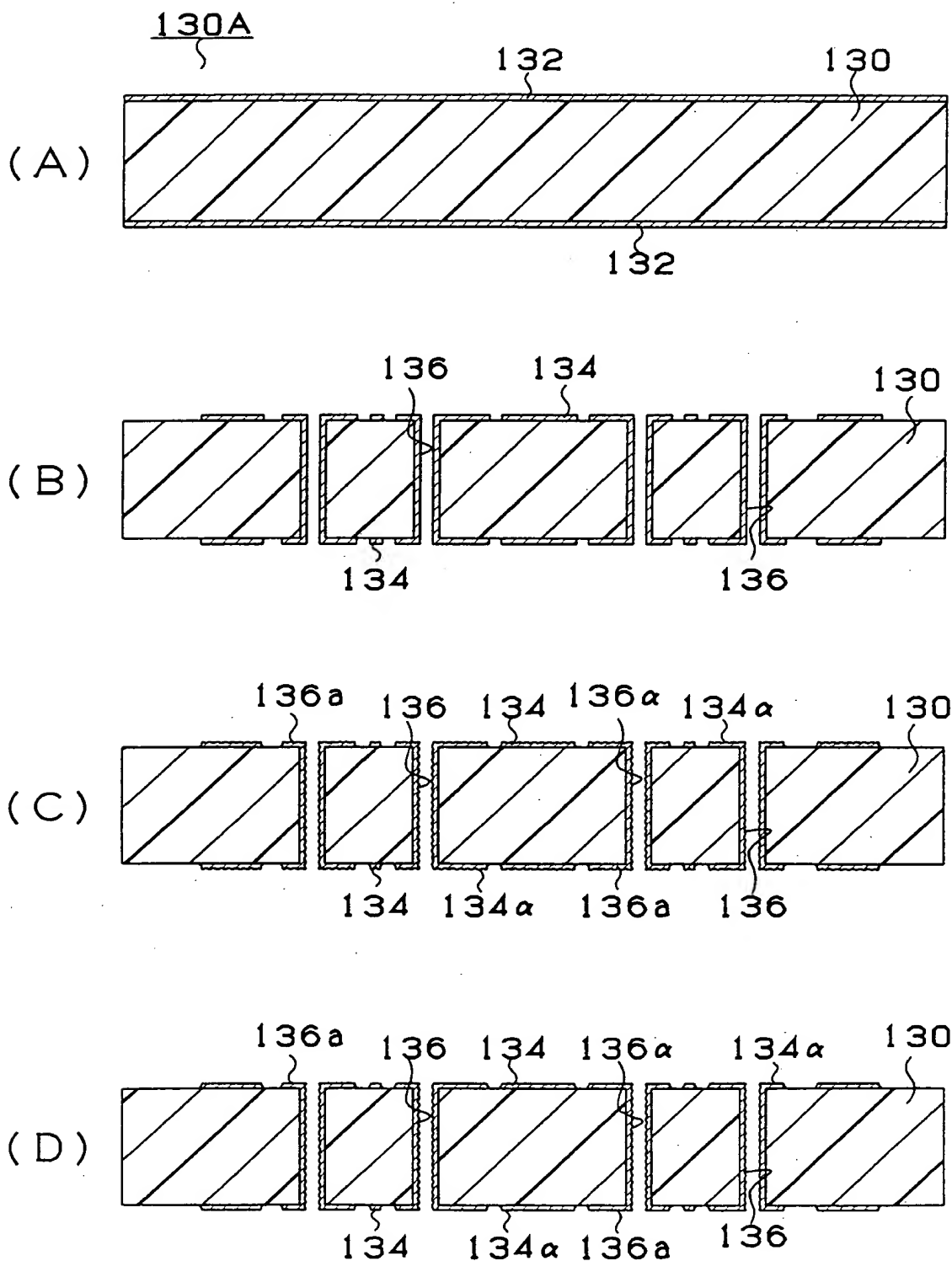
(B)



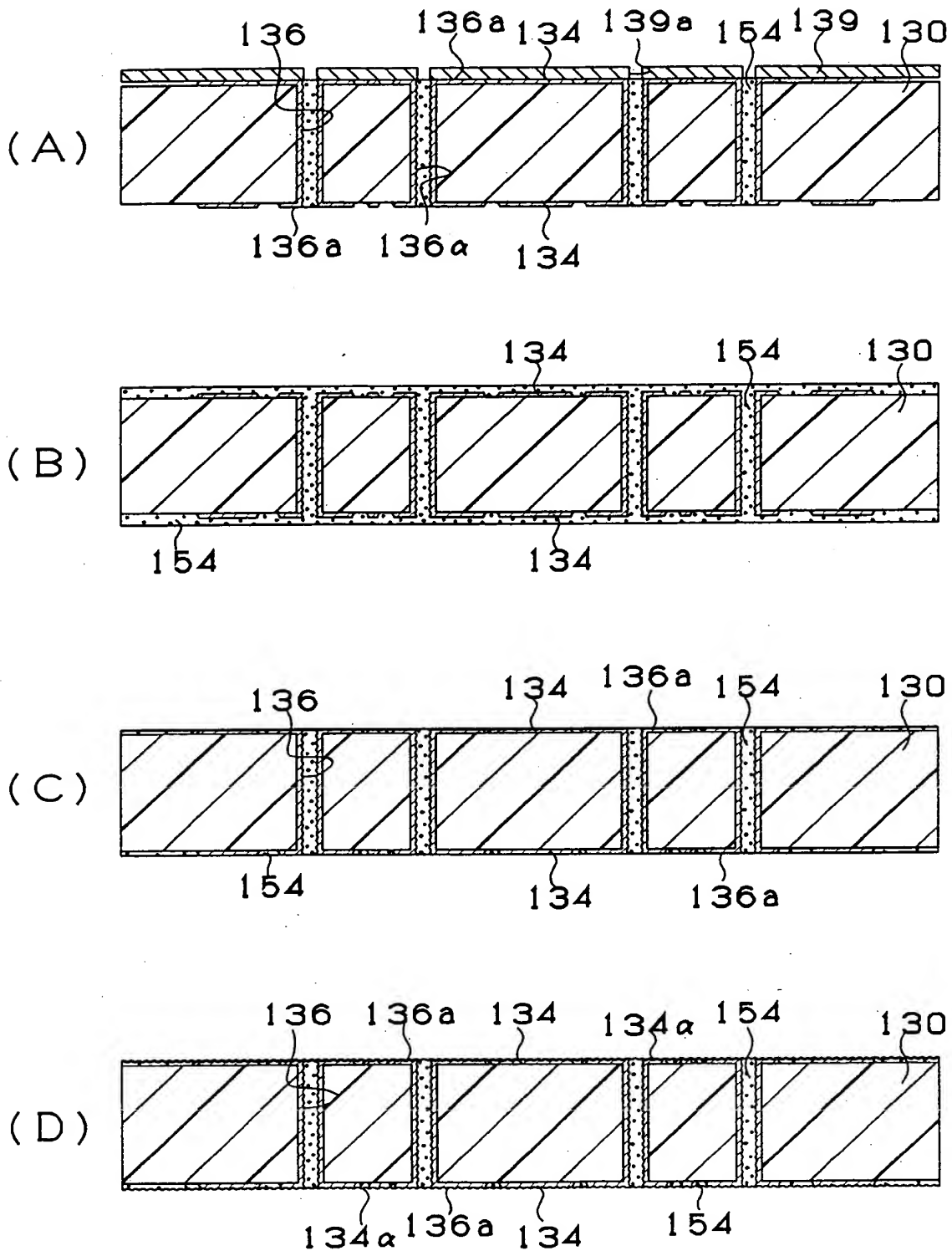
13/22  
Fig. 13



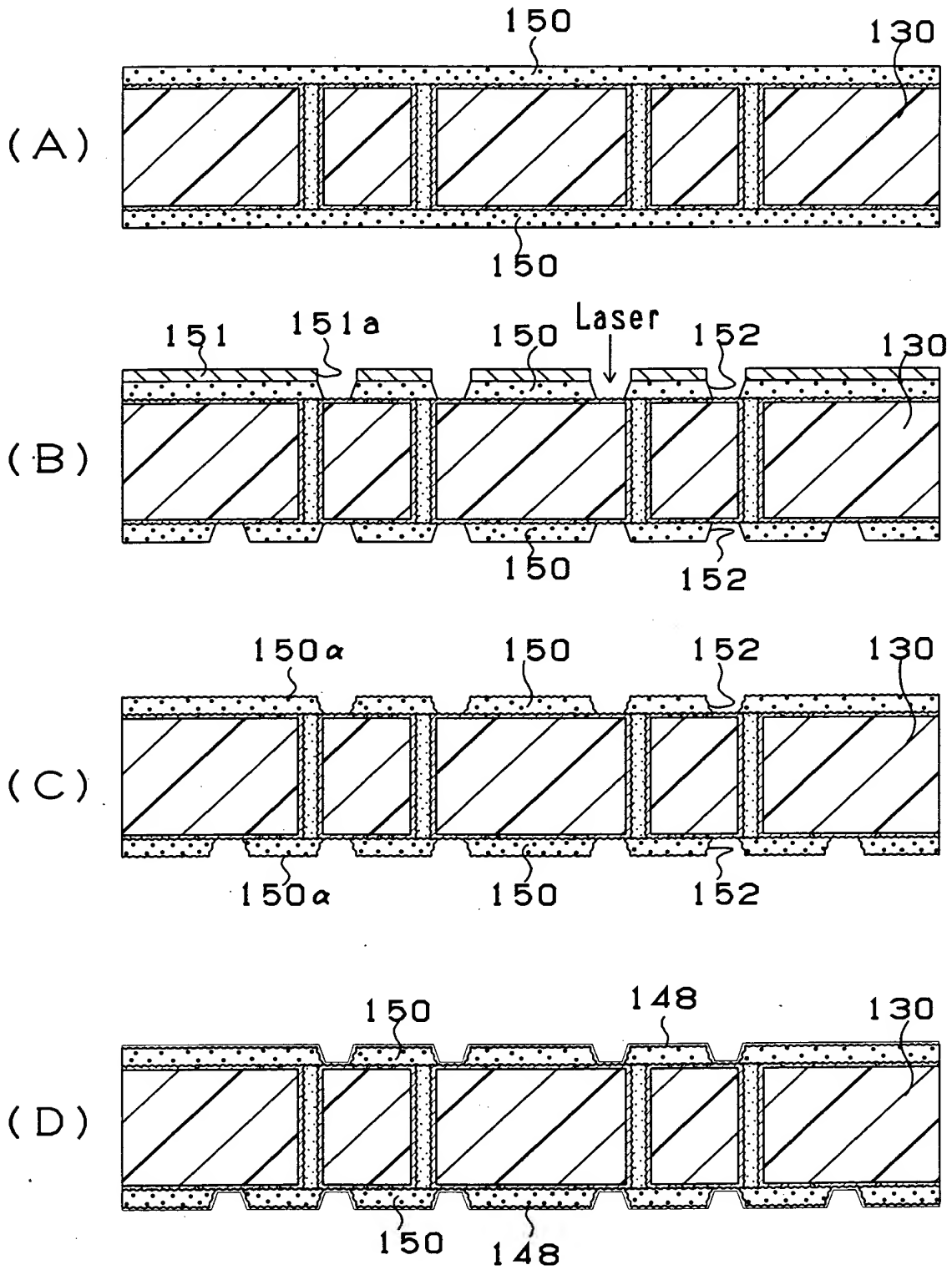
14/22  
Fig. 14



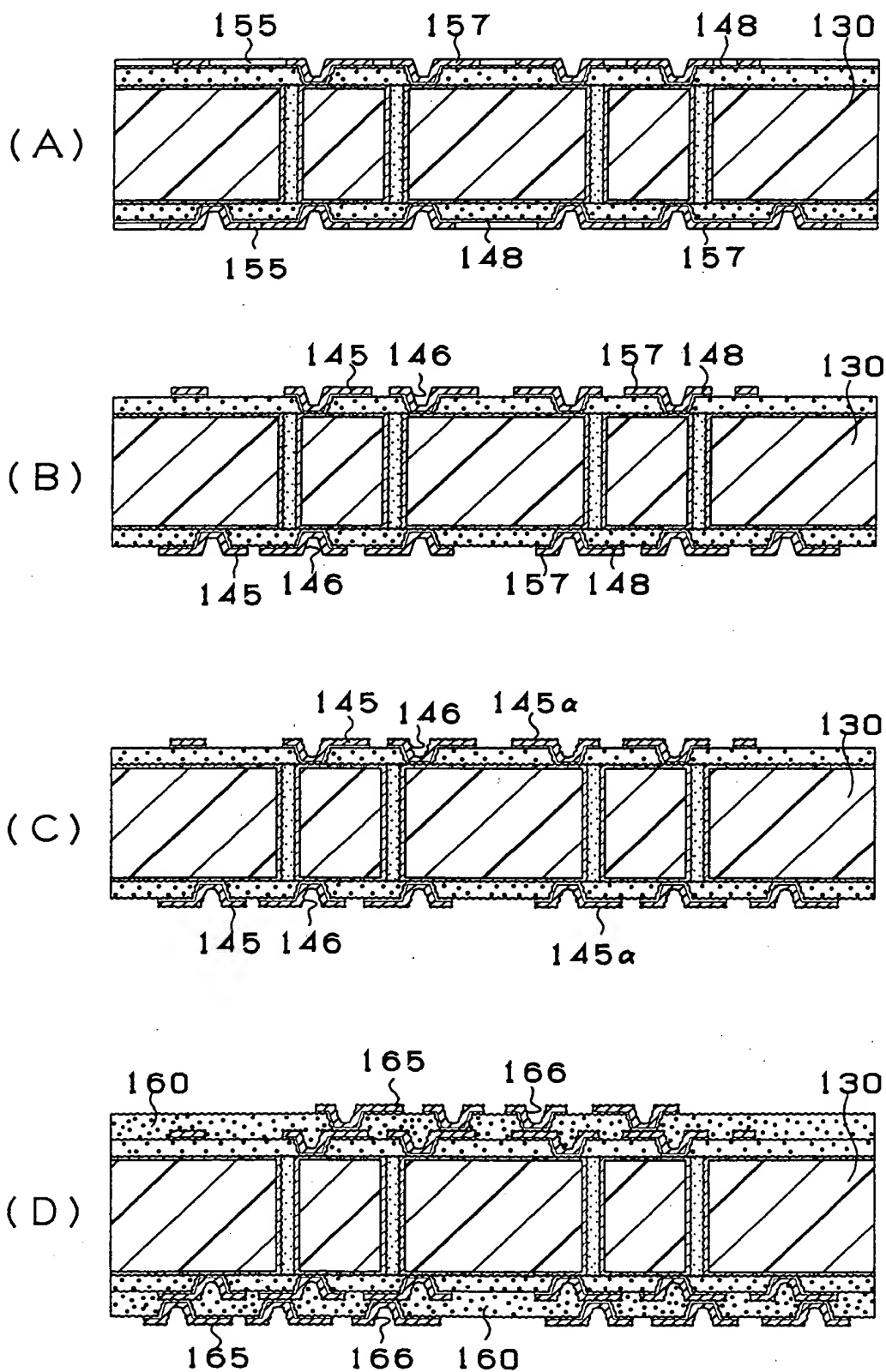
15/22  
Fig. 15



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Fig. 16

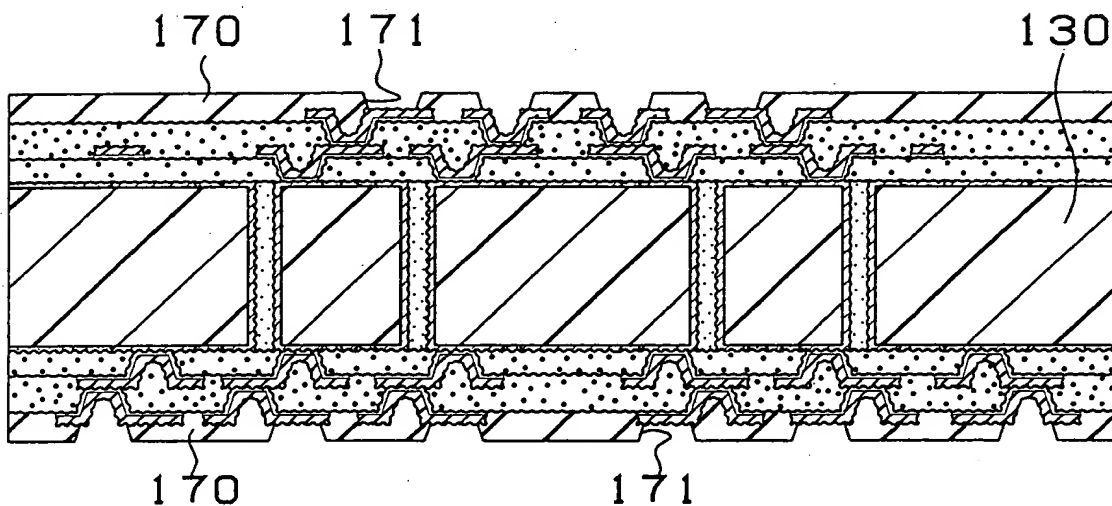




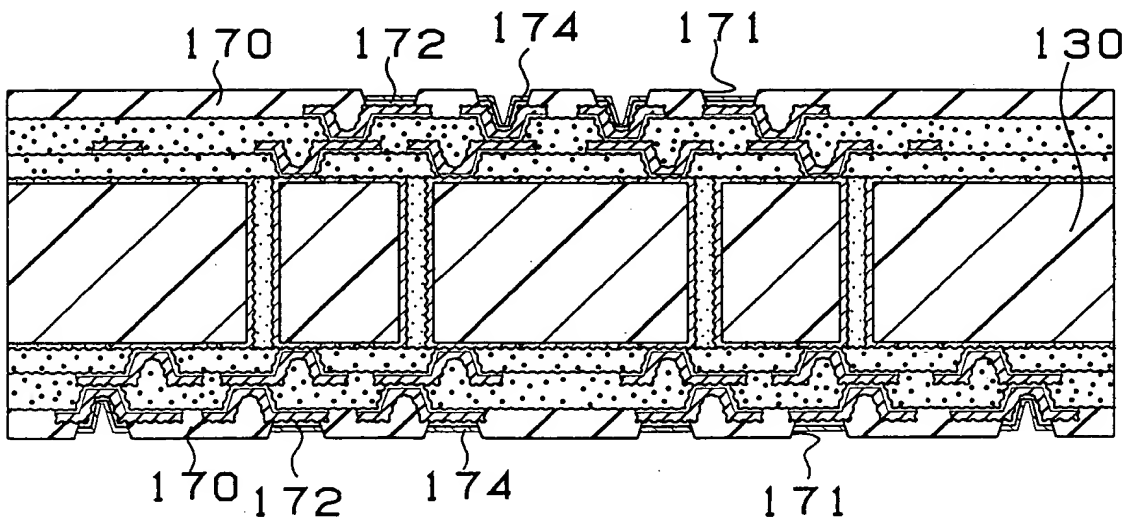
17/22  
Fig. 17

18/22  
Fig. 18

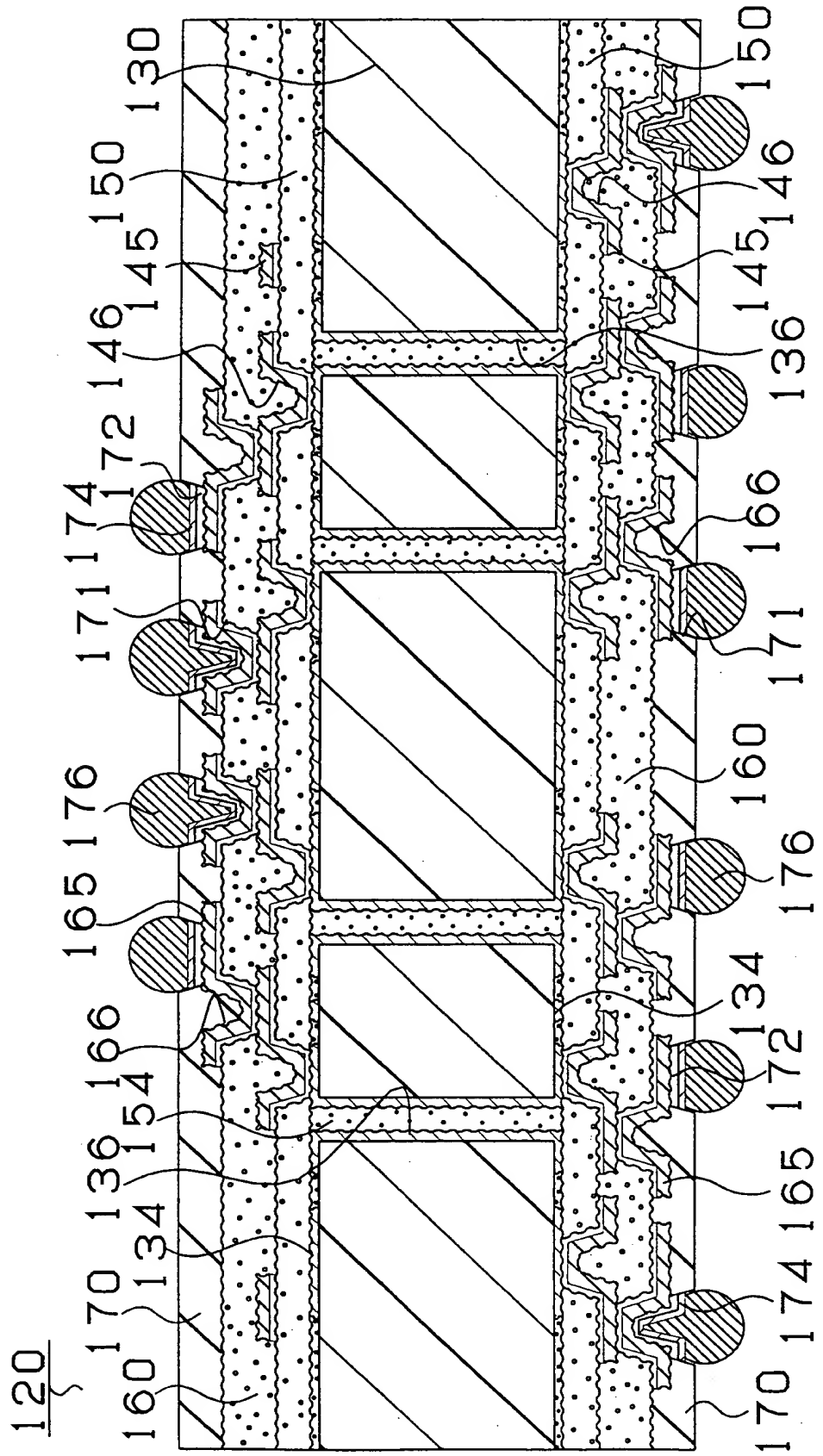
(A)



(B)



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Fig. 19



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Fig. 20

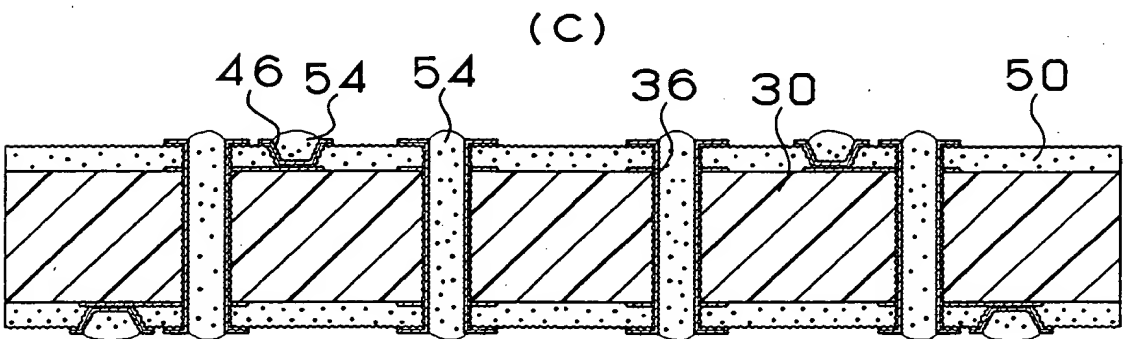
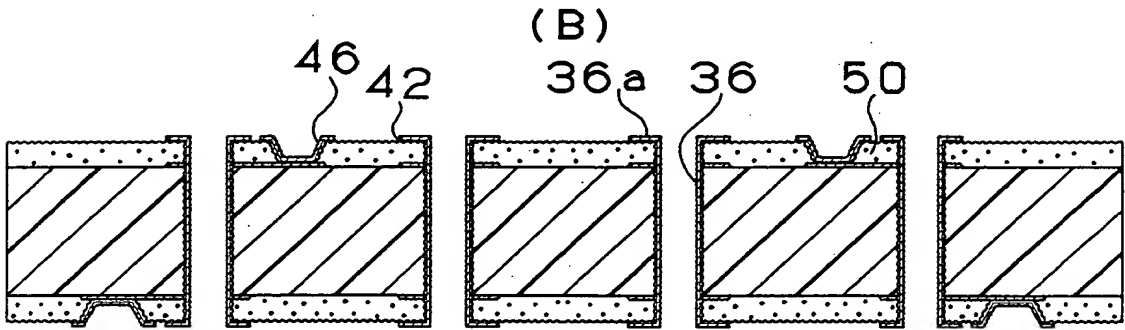
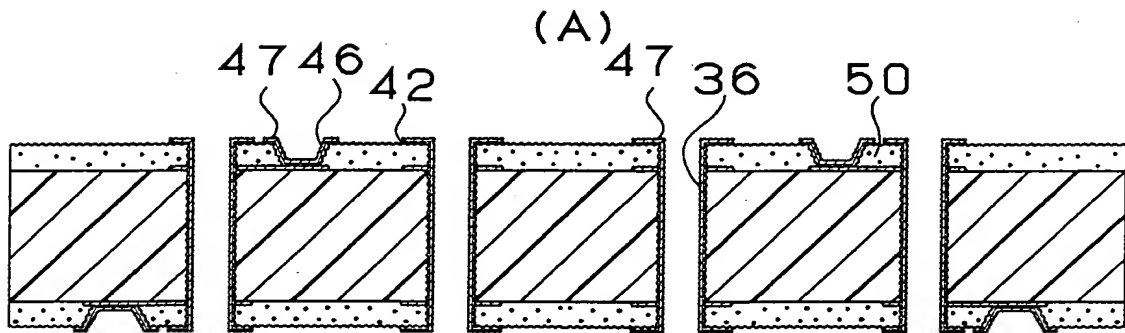


FIG. 20

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Fig. 21

	roughing method	polishing of through hole land surface	flow of resin filler out of through holes
Comparison example 5	blackening- reduction process	No	Yes
Comparison example 6	etching	No	Yes
Comparison example 7	electroless plating	No	Yes
Second Embodiment	blackening- reduction process	Yes	No
First Modification of Second Embodiment	etching	Yes	No
Second Modification of Second Embodiment	electroless plating	yes	No

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Fig. 22

